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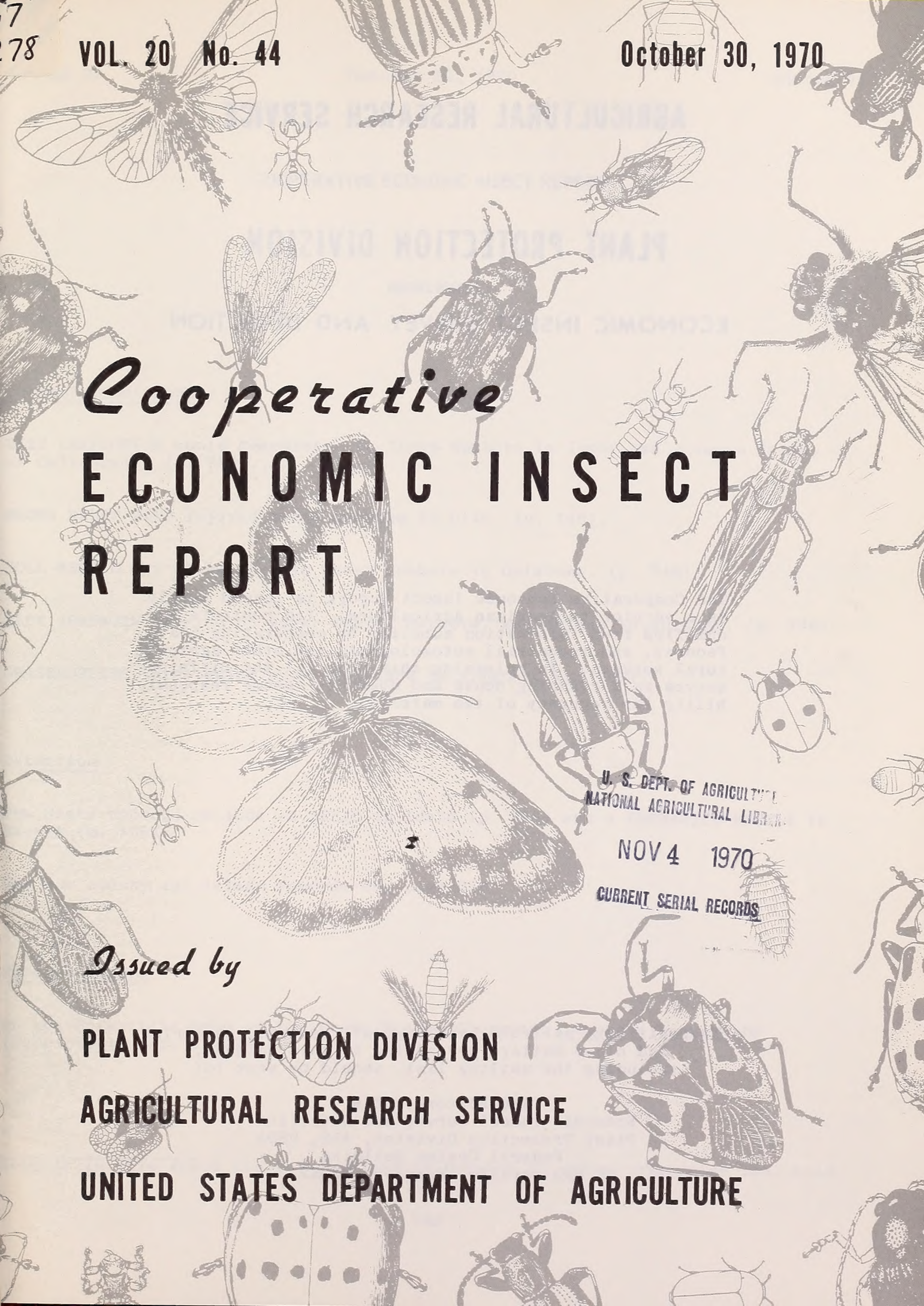

VOL. 20 No. 44

October 30, 1970

Cooperative ECONOMIC INSECT REPORT

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PLANT PROTECTION DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PROTECTION DIVISION

ECONOMIC INSECT SURVEY AND DETECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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Volume 20 October 30, 1970 Number 44

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

BEET LEAFHOPPER could overwinter in large numbers in lower San Joaquin Valley of California. (p. 745).

BROWN WHEAT MITE injured range grasses in Utah. (p. 746).

BOLL WEEVIL may overwinter in heavy numbers in Oklahoma. (p. 746).

BEET ARMYWORM treated on sugar beets, carrots, and onions in Arizona. (p. 746).

GRASSHOPPERS threatening some rangeland in Arizona. (p. 749).

Detection

New State records include an APHID in Idaho (p. 748) and a DERMESTID BEETLE in Hawaii (p. 750).

For new county and island records see page 750.

Special Report

On the Scientific Name of the Brown-Banded Cockroach, Supella longipalpa (Fabricius). (pp. 752-754).

Reports in this issue are for week ending October 23 unless otherwise indicated.

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WEATHER OF THE WEEK ENDING OCTOBER 26

HIGHLIGHTS: The rainy season is getting underway in the Pacific Northwest. Generous rains fell in the Deep South early in the week and over the weekend. Mid-week rains soaked the central and southern Great Plains. Light autumn weather prevailed over the northern Great Plains.

PRECIPITATION: Skies were mostly clear as the week began. The main exception was an area from the central Great Plains to the Gulf of Mexico where clouds produced intermittent rain. Heavy amounts fell at a few places, 5.89 inches at Meridian, Mississippi, in the 24-hour period ending at 8:00 p.m. Monday. The rains spread eastward over the Deep South with numerous localities from Alabama to Georgia receiving 24-hour totals ranging from 2 to more than 3 inches. Light rains also fell in the Pacific Northwest as the week progressed. A series of fronts brought a changeable weather pattern, clouds and snow alternating with sunny skies. As one system moved to the Atlantic late Thursday another produced thunderstorms, some with winds and hail over the central Great Plains, and a third system, the most intense, dotted the Washington coast with winds up to 70 m.p.h., soaked coastal areas with heavy rains, and covered the mountains with snow. Snow depth accumulated to over 30 inches in some of the higher mountains of Idaho and Washington. A large area from the southwestern deserts to the western portions of Kansas, Oklahoma, and Texas received no rain or only widely scattered light sprinkles during the entire week. To the other extreme, spots in the Deep South received over 4 inches. Key West, Florida, received 6.88 inches and 4 to more than 6 inches fell along the northern Pacific coast where the rainy season is getting underway.

TEMPERATURES: High pressure continued to bring clear skies and moderate temperatures to most of the Nation at the beginning of the week. As the week progressed, a series of cold fronts brought clouds and in general, smaller daily temperature ranges. The temperature range at Elkins, West Virginia, Monday was 45°, from 22° in the morning to 67° in the afternoon. On Thursday the range was 8°, from 52° in the morning to 60° in the afternoon. Subfreezing minimum temperatures occurred on 1 or 2 mornings over parts of the northern Great Plains and on several mornings over the central Rocky Mountains. Alamosa, Colorado, registered 22° Monday morning. A warmer trend occurred over the central and southern Great Plains during the week. Maximums in Oklahoma increased from the 60's on Monday to the 70's on Tuesday and the 80's on Wednesday and Thursday and dropped to the 60's and 70's on Saturday. Weather of the week continued on page 751.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

ASTER LEAFHOPPER (Macrosteles fascifrons) - OKLAHOMA - Leafhoppers, mostly this species, averaged about 5 per linear foot of young wheat in Payne County. (Okla. Coop. Sur.).

BEET LEAFHOPPER (Circulifer tenellus) - CALIFORNIA - Begun October 8, fall treatment slowed due to high winds. Organic phosphate sprayed on Russian-thistle stands not so effective as a chlorinated hydrocarbon. Numbers heaviest since 1965, ranged from 150 per sweep up to uncountable numbers. Thistle plants very large this season. Populations in lower San Joaquin Valley treatment areas indicate overwintering population on winter annuals could be large now that rains are starting. (Cal. Coop. Rpt.).

CORN EARWORM (Heliothis zea) - OKLAHOMA - Averaged 20 per 10 sweeps of Payne County alfalfa. Heavy on Tillman County alfalfa. (Okla. Coop. Sur.). ARKANSAS - Third and fourth instars 100 in 100 sweeps of Washington County alfalfa October 16. Currently declined, larvae 12-15 in 100 sweeps. (Boyer). MICHIGAN - Light trap catches began increasing again. High of 34 on October 8 in Benzie County. During past week 94 taken in Lenawee County. (Sauer, Oct. 19).

GREENBUG (Schizaphis graminum) - NEVADA - Appearing on fall-planted small grains 2 to 8-inches high in Virgin Valley, Clark County. Very light and spotted. (Bechtel, Zoller).

SPOTTED ALFALFA APHID (Therioaphis maculata) - OKLAHOMA - Averaged 15 per 10 sweeps of Payne County alfalfa. (Okla. Coop. Sur.). OREGON - Medium on alfalfa south of Medford, Jackson County. (Goeden, Penrose).

CORN, SORGHUM, SUGARCANE

EUROPEAN CORN BORER (Ostrinia nubilalis) - MICHIGAN - Moths reappearing in light traps. During past week 12 moths taken at Lenawee County station. May represent beginning of third brood. (Sauer, Oct. 19). MINNESOTA - Most stalk breakage above ears. Much stalk breakage due to larval feeding and stalk rot disease. Percent stalk breakage below the ear (and percent dropped ears) by district: Southwest 8.9 (3.3), south-central 5.4 (1.1), southeast 37 (0.5), west-central 2 (0.6), central 2 (0.3), east-central 2.5 (0.5), and northwest 1.4 (0). (Minn. Pest Rpt.).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - ARKANSAS - About 25 percent of overwintering larvae in corn roots dead. (Boyer).

SMALL GRAINS

FALL ARMYWORM (Spodoptera frugiperda) - OKLAHOMA - Averaged 1 per 10 linear feet of wheat in Payne County. Light on Jackson and Tillman County wheat. Probably this species, moderate on Love County small grain. (Okla. Coop. Sur.). VIRGINIA - Severely damaged several rye fields in King and Queen County. (Allen, Oct. 15).

TURF, PASTURES, RANGELAND

FALL ARMYWORM (Spodoptera frugiperda) - SOUTH CAROLINA - Especially damaging to rye for winter grazing in Jasper County past week to 10 days. One dairyman lost 40 acres. Currently pupating. (Nettles, Oct. 19).

SCARABS - TENNESSEE - Cotinis nitida (green June beetle) larvae numerous in some pastures in western area. Some light damage. Many larvae surfaced after heavy rains. (Locke). VIRGINIA - Cyclocephala borealis (northern masked chafer) larvae increased in turf in many areas. (Allen).

TARNISHED PLANT BUG (Lygus lineolaris) - MISSISSIPPI - Adults 1 per 75 sweeps of Oktibbeha County oats. (Sartor).

A WHITEFLY (Aleurocybotus occiduus) - ARIZONA - Controls applied for this pest and Heterococcus sp. (a mealybug) on Bermuda grass seed fields at Yuma, Yuma County, October 12. (Ariz. Coop. Sur.).

BROWN WHEAT MITE (Petrobia latens) - UTAH - Injury, mostly by this mite, conspicuous in 5,000 acres of range grasses in Garfield and Kane Counties. (Lindsay).

FORAGE LEGUMES

NOCTUID MOTHS - ARIZONA - Spodoptera exigua (beet armyworm) larvae ranged 30-120 per 100 sweeps in Gila and Yuma Valleys, Yuma County. Colias eurytheme (alfalfa caterpillar) averaged 5 per 100 sweeps of alfalfa in Yuma Valley. (Ariz. Coop. Sur.). UTAH - C. eurytheme 0.5 in 10 sweeps of alfalfa at Newton, Cache County. (Knowlton). OKLAHOMA - Plathypena scabra (green cloverworm), Trichoplusia ni (cabbage looper), and Pseudoplusia includens (soybean looper) heavy on Tillman County alfalfa. P. scabra averaged 5 per 10 sweeps and T. ni averaged 1 per 30 sweeps in Payne County. (Okla. Coop. Sur.). ARKANSAS - Occasional P. includens larva picked up from northwestern area alfalfa. (Boyer).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - OKLAHOMA - Adults averaged 4 per 10 sweeps on Payne County alfalfa. (Okla. Coop. Sur.). MISSOURI - Adults declining. Ranged 5-31 per 100 sweeps of alfalfa in Butler and Dunklin Counties. (Munson).

TARNISHED PLANT BUG (Lygus lineolaris) - ARKANSAS - Still active on northwestern area alfalfa; nymphs still present. (Boyer). MASSACHUSETTS - Light to medium in Hampshire County field. (Miller, Oct. 21).

COTTON

BOLL WEEVIL (Anthonomus grandis) - OKLAHOMA - Adults still active and heavy in many southwestern area fields. Indicates large overwintering population in some areas. (Okla. Coop. Sur.).

SUGAR BEETS

BEET ARMYWORM (Spodoptera exigua) - ARIZONA - Larvae 1 per plant on 200+ acres at Casa Grande, Pinal County. Controls applied. (Ariz. Coop. Sur.).

SUGAR-BEET ROOT MAGGOT (Tetanops myopaeformis) - NORTH DAKOTA - Maggot finds by county: Grand Forks at Johnstown, Thompson, and north of Manvel; Traill north of Taft and west of Caledonia; Richland west of Galchutt, farthest south that maggots found in State. (Brandvik, Kaatz).

GREEN PEACH APHID (Myzus persicae) - ARIZONA - Light in 2 fields on western side of Salt River Valley, Maricopa County. (Ariz. Coop. Sur.).

BEANS AND PEAS

SOUTHERN BEET WEBWORM (Herpetogramma bipunctalis) - FLORIDA - Larvae moderate in 135 acres of commercial snap beans near Live Oak, Suwannee County. (Massimaino, Oct. 14).

GENERAL VEGETABLES

BEET ARMYWORM (Spodoptera exigua) - ARIZONA - Treatments applied to carrots and onions at Yuma, Yuma County. (Ariz. Coop. Sur.).

CARROT WEEVIL (Listronotus oregonensis) - MASSACHUSETTS - Larval damage moderate to carrots in Essex County. (Jensen, Oct. 16).

COWPEA APHID (*Aphis craccivora*) - OREGON - Moderate on asparagus at Milton-Freewater, *Umatilla County*. Nymphs and adult apterae and alatae present; last stage predominant. (Goeden, Westcott, Oct. 16).

DECIDUOUS FRUITS AND NUTS

RAIN BEETLES (*Pleocoma* spp.) - OREGON - *P. oregonensis* adult activity starting at The Dalles, *Wasco County*. Locally, however, *beetles out* for several weeks, especially in irrigated areas. Skunks eating many females in such areas. *P. minor* emerging in numbers at Hood River, Hood River County. (Zwick).

CODLING MOTH (*Laspeyresia pomonella*) - UTAH - Infested almost all apples in some Logan and other *Cache County home orchards*. (Thornley, Knowlton).

TWIG GIRDLER (*Oncideres cingulata*) - MISSISSIPPI - Damage light to pecans in Tate County. (Sartor). *TENNESSEE - Damaged* pecan trees in western area. (Locke).

CITRUS

Citrus Insect Situation in Florida - Mid-October - CITRUS RUST MITE (*Phyllocoptruta oleivora*) *infested 81 (norm 67) percent of groves*; economic in 65 (norm 41) percent. Still in high range. Population on leaves highest for mid-October in 19 years of record. Near record high level on fruit. Decrease expected in November. Highest districts south, west, north, central, and east. CITRUS RED MITE (*Panonychus citri*) in 26 (norm 23) percent of groves; economic in 8 (norm 5) percent. Above normal but still at low level in all districts. Highest district central. Fall increase started. Scattered heavy infestations may be expected. TEXAS CITRUS MITE (*Eutetranychus banksi*) in 20 (norm 18) percent of groves; economic in 6 (norm 4) percent. Near normal and low in all districts. Buildup expected, especially in young groves. Highest district central. GLOVER SCALE (*Lepidosaphes gloverii*) in 60 (norm 56) percent of groves; economic in 6 (norm 7) percent. Near normal and moderate. Little change expected. Highest district south. PURPLE SCALE (*L. beckii*) in 52 (norm 53) percent of groves; economic in 3 (norm 2) percent. Normal and low. Increase expected but will not be severe. Highest district north. BLACK SCALE (*Saissetia oleae*) in 44 (norm 35) percent of groves; economic in 18 (norm 13) percent. At low level but above normal. Decrease expected through October; little change in November. Central district high. YELLOW SCALE (*Aonidiella citrina*) and CHAFF SCALE (*Parlatoria pergandii*) will remain very low in all districts. An ARMORED SCALE (*Unaspis citri*) in 28 percent of groves; moderate to heavy in 15 percent. Record high level of September persisted into October. Decrease expected in late October with little change thereafter. WHITEFLIES infested 88 percent of groves; economic in 29 percent. Increased and near record high October level of year ago. Decrease to moderate level expected in November. Highest districts north and east. (W.A. Simanton (Citrus Expt. Sta., Lake Alfred)).

Quarterly Citrus Insect and Mite Outlook in Florida - October through December - This outlook is based on the assumption that weather beyond the period of the current U.S. Weather Bureau 30-day Outlook will be normal. Therefore, the forecasts given below cannot be viewed with the same degree of confidence as those in the "Insect and Disease Summary" usually released twice each month by this station.

CITRUS RUST MITE will continue in high range until December. Increase expected until mid-November followed by gradual decrease. Heavy infestations will occur in about 20 percent of groves. CITRUS RED MITE and TEXAS CITRUS MITE will increase steadily until year's end. Statewide population not expected to exceed normal low to moderate level. Heavy infestations of either species may build up rapidly in young groves. WHITEFLIES will increase in October, then decrease in November and December. Expected to be above average and in high range in most districts. GLOVER SCALE, PURPLE SCALE, YELLOW SCALE, and BLACK SCALE will gradually increase through December but not expected to become troublesome during rest of year. An ARMORED SCALE (*Unaspis citri*) will attain higher statewide level than in any prior month due to intensification within groves and probable spread to previously uninfested groves by picking crews and equipment. MEALYBUGS will continue to decline to very low level. (W.A. Simanton).

ORNAMENTALS

A PYRALID MOTH (Hyblaea puera) - FLORIDA - Larvae infested all 300 plants of black calabash (Crescentia spp.) in nursery at Lauderdale Lakes, Broward County. (Clinton, Oct. 5). This is a new host record. (Fla. Coop. Sur.).

AN APHID (Liosomaphis berberidis) - IDAHO - Nymphs medium on Oregon-grape at Twin Falls, Twin Falls County. Collected by D.W.S. Sutherland June 5, 1970. Determined by L.M. Russell. This is a new State record. (Sutherland).

A PIT SCALE (Cerococcus deklei) - FLORIDA - Severely infested all 3,090 hibiscus plants in nursery at Miami, Dade County. (Brewton, Oct. 14).

A GROUND MEALYBUG (Rhizoecus americanus) - FLORIDA - Eggs moderate on 20 percent of 1,000 nursery plants of Norfolk Island pine (Araucaria excelsa) at Palmetto, Manatee County. (McFarlin, Oct. 14).

WHITE GRUBS (Phyllophaga spp.) - VIRGINIA - Damaged fiberous roots of azaleas in field in Accomack County. (Greenwood, Oct. 14).

A FALSE SPIDER MITE (Tenuipalpus pacificus) - FLORIDA - All stages moderate to severe on 10 percent of 5,000 cattleya orchid plants in nursery at Tampa, Hillsborough County. (Hale, Oct. 15).

FOREST AND SHADE TREES

DOUGLAS-FIR TUSSOCK MOTH (Hemerocampa pseudotsugata) - CALIFORNIA - Extensive survey in El Dorado National Forest October 5-9. Infestation light in about 30,000 acres of fir on Baltic Ridge, Plummer Ridge, Alder Ridge, and Iron Mountain, between U.S. Highway 50 and State Highway 88; mostly on Forest Service lands. Heavy in spots on white fir on Plummer and Baltic Ridges, and Iron Mountain. No virus disease in pupae. (USFS).

ROUNDHEADED PINE BEETLE (Dendroctonus adjunctus) - NEVADA - Flights in Spring Mountains, Clark County, almost ended due to cool temperatures. If temperatures rise, flights will continue as many adults are ready to emerge. (Young).

EASTERN SPRUCE GALL APHID (Adelges abietis) - WEST VIRGINIA - Infested 80 percent of 25-acre Norway spruce plantation in Marion County. In 10 percent of trees in 1-acre Norway spruce plantation in Taylor County October 21. (Atkins).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - MISSISSIPPI - Moderate on Chinese, American, and winged elms in Hinds County. (Sartor).

TWIG GIRDLER (Oncideres cingulata) - TENNESSEE - Damaged hickory, elm, and ash trees in western area. (Locke).

LYONETIID MOTHS (Bucculatrix spp.) - MISSISSIPPI - Moderate to heavy on Nuttal oak in Sharkey County. (Sartor). MASSACHUSETTS - B. ainsliella (oak skeletonizer) larvae and pupae still causing many complaints statewide. (Jensen).

MAN AND ANIMALS

SCREW-WORM (Cochliomyia hominivorax) - One case reported in U.S. October 18-24 in Dimmit County, Texas. Total of 170 laboratory-confirmed cases reported in portion of Barrier Zone in Republic of Mexico as follows: Sonora 131, Chihuahua 26, Coahuila 2, Nuevo Leon 1, Tamaulipas 10. Total of 37 cases reported in Mexico south of Barrier Zone. Barrier Zone is area where eradication operation underway to prevent establishment of self-sustaining population in U.S. Sterile screw-worm flies released: Texas 26,538,000; New Mexico 4,860,000; Arizona 6,020,000; California 400,000; Mexico 90,560,000. (Anim. Health Div.).

HORN FLY (Haematobia irritans) - FLORIDA - Averaged 47 per head of beef cattle at Gainesville, Alachua County. (Butler, Oct. 22). OKLAHOMA - Averaged 150 per head on cattle checked in Payne County. Still heavy in Mayes County. (Okla. Coop. Sur.). UTAH - Greatly reduced in Cache County range and in canyons since recent frosts. (Thornley, Knowlton).

FACE FLY (Musca autumnalis) - MARYLAND - Adults still active in Frederick County. Heaviest counts ranged 1-3 per head on dairy cattle near Thurmont. (U. Md., Ent. Dept.). UTAH - Greatly reduced in Cache County range and in canyons since recent frosts. (Thornley, Knowlton).

HOUSEHOLDS AND STRUCTURES

SPECKLED COCKROACH (Nauphoeta cinerea) - CALIFORNIA - Specimens collected in residence at San Francisco, San Francisco County, August 12, 1970, by E. Carter. Determined by A.B. Gurney. This is a new county record. Origin of infestation unknown; may have been associated with vermicelli flour from Orient. Known to occur in East Africa, Germany, Australia, Hawaii, and Florida. Infests grain, fruit, and vegetables; also feeds on other cockroaches. Only other record in State is for Oakland, Alameda County. (Cal. Coop. Rpt.).

STORED PRODUCTS

SAW-TOOTHED GRAIN BEETLE (Oryzaephilus surinamensis) - MICHIGAN - Continues problem in stored grain and in households. (Sauer, Oct. 19).

BENEFICIAL INSECTS

LADY BEETLES - ARKANSAS - Mostly Hippodamia convergens (convergent lady beetle) and Coleomegilla maculata still active in light numbers with a few larvae on alfalfa in northwestern area. (Boyer).

GREEN LACEWINGS (Chrysopa spp.) - ARKANSAS - Larvae on Washington County alfalfa. (Boyer, Oct. 16).

A FLOWER BUG (Orius insidiosus) - ARKANSAS - Continues active in alfalfa. Light in northwestern area. (Boyer).

DAMSEL BUGS (Nabis spp.) - ARKANSAS - Continue active in low numbers in northwest area. (Boyer).

SPIDERS - OKLAHOMA - Only beneficial arthropods in any number on Payne County alfalfa. Averaged 45 per 10 sweeps. Six families collected but Oxyopes sp. (a lynx spider) most abundant, 30-35 per 10 sweeps. (Okla. Coop. Sur.).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

CARIBBEAN FRUIT FLY (Anastrepha suspensa) - FLORIDA - Larvae in 25 calamondins checked in nursery at Daytona Beach, Volusia County. (Pott, Oct. 14). First larvae found at this nursery in 1970. (Fla. Coop. Sur.).

GRASSHOPPERS - ARIZONA - Late infestation of Boopedon nubilum, Morseiella flaviventris, and Melanoplus lakinus threatened 45,000 acres of private rangeland at Sasabe, Pima County. Ranged 10-30 per square yard. Ranchers decided against controls. Grasshoppers light to threatening on much acreage in vicinity of Seligman, Yavapai County, where economic infestations not found for several years. (Ariz. Coop. Sur.).

PINK BOLLWORM (Pectinophora gossypiella) - CALIFORNIA - Sterile moth releases of 6,633,989 (76,771,149 to date) October 16-22 at Bakersfield, Kern County. Total of 11 native moths and 2 larvae found to date in Kern County. ARIZONA - Sterile release of 67,500 (1,619,800 to date) in field at Redington, Pima County. Four native moths caught for season total of 49. Boll infestation down to 8.2 percent. Boll infestations 30 miles to north and south, 62.4 percent and 26.4 percent respectively. (PPD). Larvae infested 90 percent of top crop in 2 cotton fields at Gadsden Valley, Yuma County. (Ariz. Coop. Sur.).

RANGE CATERPILLAR (Hemileuca oliviae) - NEW MEXICO - Adults numerous around lights at Raton, Colfax County. (Mathews).

WHITE-FRINGED BEETLES (Graphognathus spp.) - MISSOURI - New infestation at Malden, Dunklin County. Adults heavy on several properties. (Thompson). VIRGINIA - G. peregrinus adults light on wild aster at city of Petersburg for a new record. Collected by Drewry and Jenkins October 20. Determined by R.E. Warner. (PPD).

HAWAII INSECT REPORT

New State Record - Thirty larvae of a DERMESTID BEETLE (Trogoderma variabile) taken from trogotrap baited with dog biscuits in feed store at Honolulu, Oahu. Collected by F.J. Olson September 16, 1970. Determined by C.J. Hansel. (Olson).

Corn - CORN PLANTHOPPER (Peregrinus maidis) nymphs and adults trace to light in whorls of 3 to 4-foot corn in 5-acre planting at Waianae, Oahu. Nymphs and adults of a PREDACIOUS CAPSID BUG (Cyrtorhinus lividipennis) trace. TUMID SPIDER MITE (Tetranychus tumidus) trace. (Kawamura).

General Vegetables - CARMINE SPIDER MITE (Tetranychus cinnabarinus) light to moderate, 5-40 per square inch, on leaves in 5,000 square feet of eggplant at Kahului, Maui. Moderate to heavy in 3 acres of snap beans at Waianae; 60+ per square inch on some older leaves. (Miyahira, Kawamura).

Ornamentals - An APHID (Lachnus salignus) nymphs and adults heavy on leaves and terminal twigs of pussy willow (Salix discolor) at Volcano, Hawaii, for a new host record. Previously reported only on a native shrub, Osteomeles anthyllidifolia in Hawaii, although recorded from willow and other hosts elsewhere. (Davis).

Beneficial Insects - Two specimens of a parasitic ENCYRTID WASP (Coccidoxenus mexicanus) emerged from passionfruit twigs heavily infested with BARNACLE SCALE (Ceroplastes cirripediformis) collected at Kahului in early October. Twelve also emerged from fiddlewood (Citharexylum spinosum) twigs heavily infested with barnacle scale collected at Hawaii Kai, Oahu, in mid-October. C. mexicanus introduced into Hawaii from Trinidad in June 1967 to control Ceroplastes and Saissetia spp. Only one release of 25 adults at Kahului July 17, 1967. None released on Oahu. (Funasaki et al.). Larvae and adults of a KLAMATH-WEED BEETLE (Chrysolina quadrigemina) light on Hypericum degeneri at Kilauea Forest Reserve, Hawaii; eggs numerous, averaged 6 per plant. Three thousand released June 8, 1964, on Hualalai, Hawaii, to control Klamath-weed (Hypericum perforatum). (Davis).

Miscellaneous Insects - Adults and nymphs of SPINY ASSASSIN BUG (Polididus armatissimus) swept from fern at night along Kaulalewalewe-Puu Trail, Maui, for a new island record. Previously recorded only on Kauai, Oahu, and Hawaii. (Gagne).

DETECTION

New State Records - AN APHID (Liosomaphis berberidis) IDAHO - Twin Falls County (p. 748). A DERMESTID BEETLE (Trogoderma variabile) HAWAII - Oahu Island (p. 750).

New County and Island Records - An ENCYRTID WASP (Coccidoxenus mexicanus) HAWAII - Oahu (p. 750). SPECKLED COCKROACH (Nauphoeta cinerea) CALIFORNIA - San Francisco County (p. 749). SPINY ASSASSIN BUG (Polididus armatissimus) HAWAII - Maui (p. 750). A WHITE-FRINGED BEETLE (Graphognathus peregrinus) VIRGINIA - Independent City of Petersburg (p. 750).

LIGHT TRAP COLLECTIONS

	Tempera-ture °F.	Precip-itation (inches)	Type of trap (BL = blacklight, I = incandescent, MV = mercury vapor, O = other)	*Agrotis ipsilon* (black cutworm)	*Carpocapsa pomonella* (codling moth)	*Chorizagrotis auxiliaris* (army cutworm)	*Estigmene acrea* (salt-marsh caterpillar)	*Faronta diffusa* (wheat head armyworm)	*Feltia subterranea* (granulate cutworm)	*Heliothis virescens* (tobacco budworm)	*H. zea* (bollworm, corn earworm, tomato fruitworm)	*Loxostege commixtalis* (alfalfa webworm)	*Loxostege similalis* (garden webworm)	*Loxostege sticticalis* (beet webworm)	*Manduca quinquemaculata* (tomato hornworm)	*Manduca sexta* (tobacco hornworm)	*Ostrinia nubilalis* (European corn borer)	*Peridroma saucia* (variegated cutworm)	*Prodenia ornithogalli* (yellow-striped armyworm)	*Pseudaletia unipuncta* (armyworm)	*Spodoptera exigua* (beet armyworm)	*Spodoptera frugiperda* (fall armyworm)	*Trichoplusia ni* (cabbage looper)	Crops
FLORIDA																								
Gainesville 10/16-22			BL	5			1		3		2								1	2	10	18	1	
MISSISSIPPI																								
Stoneville 10/16-22	41-74	0.93	2BL	34					94		60							1	18	146	114	36		
MISSOURI (Counties)																								
Greene 10/8-14			BL	1							37						1		4	5				
Greene 10/15-21			BL	8							14							1		12				
Jefferson 10/15-21			BL	3							25								4	4				
TENNESSEE																								
Hardeman 10/16-23			BL	30							4						5		3	3		1	11	
Madison 10/16-23			BL	8							8						6			3		10		
Shelby 10/16-23			BL								1													
Tipton 10/16-23			BL								2						1							
TEXAS																								
Waco 10/16-22			BL	7					134	2	45							18	10	52	86	16	5	
WISCONSIN																								
Hancock 10/13-21			BL	30							3									9				
Madison 10/16-22			BL	4														3		3				
Mazomanie 10/12-19			BL								2									1				

Weather of the week continued from page 744.

The warmest spot in the Nation was the southwest deserts where maximums reached the high 80's on Monday and Tuesday, the low 80's later in the week, and the high 70's over the weekend. Temperatures averaged cooler than normal from the Pacific Ocean to the western edge of the Great Plains and from the middle Mississippi Valley to the gulf and above normal over most other areas. Parts of the northern Great Plains averaged 5-11° warmer than normal. (Summary supplied by Environmental Data Service, ESSA.)

On the Scientific Name of the Brown-Banded Cockroach, *Supella longipalpa* (Fabricius) (Dictyoptera, Blattaria, Blattellidae)

Ashley B. Gurney 1/

Ten years ago, my friend Dr. Karlis Princis of Lund, Sweden, reported finding that the above Fabrician name applies to the species then almost universally known as *Supella supellectilium* (Serville) (Princis, 1960, p. 193). Personally, I wish that conservation of *supellectilium* (Serville, 1838) had been requested from the International Commission on Zoological Nomenclature. However, that was not done, and during the past 10 years there has been sufficient use of *S. longipalpa* (F.) 1798 to make any current effort to conserve *supellectilium* unwarranted. For this reason, I have recommended that *S. longipalpa* be adopted in the forthcoming edition of the Common Name List.

That *longipalpa* has priority over *supellectilium* is clear. Fabricius (1798, p. 185) described *Blatta longipalpa* from "India orientali Dom. Daldorff," i.e., eastern India, Mr. Daldorff (collector). Princis (1960) examined the type specimen, a male, which also was recorded by Zimsen (1964, p. 614) as part of the Fabrician Collection in Copenhagen, Denmark, it having been obtained from a collection of Fabrician specimens in Kiel, Germany. Earlier, Shelford (1908, p. 468) had reported the unavailability of the type, but he was unaware of its presence at that time in Kiel. Judging from the travels of D.K. (or I.K.) Daldorff, as reported by Henriksen (1923, p. 121) and Zimsen (1964, p. 12), the type of *longipalpa* probably was collected in Tranquebar, which is in the State of Madras, on the eastern side of the Indian peninsula. It is not known how early *longipalpa* was established there, but Annandale (1907) said that it was "found throughout the Peninsular region." Daldorff arrived in Tranquebar in early 1791 and was there or nearby much of the time for 7 years or longer. Princis (1963, p. 249) mistakenly listed the type locality of *longipalpa* as "Ile-de-France (=Mauritius)," probably by inadvertence while thinking in terms of *supellectilium*.

Serville (1838, p. 114) described *Blatta supellectilium* from "Ile de France." Now known as Mauritius, located in the Indian Ocean about 500 miles east of Madagascar, the island was called Ile de France by the French who colonized it during 1715-1810, but since then it has been under British administration. Prior to the French, the island was colonized by the Dutch, so there was a long history of international shipping to and from the island. Serville said that *supellectilium* was reported to be very common on Mauritius only in houses, occurring always amidst furniture, especially in the drawers of chests, and he referred to it (in French, "Blatte des meubles") as the furniture cockroach, a common name which has persisted in some countries. The species name is from the Latin noun "supellex," meaning household goods, furniture, utensils, and the like. The logical depository for the type specimen of *supellectilium* is the Paris Museum, but Rehn (1947, p. 65) said that Dr. L. Chopard wrote him that the type had been lost. Even in the absence of a type specimen, however, it appears that what usually has been called *supellectilium* is indeed the species agreeing in description and behavior with Serville's species, and with *longipalpa*, so there is no reason to question the synonymy reported by Princis (1960). Related species of *Supella* have been reviewed by Rehn (1947, pp. 60-92) and Princis (1963, pp. 248-252; 1969).

Evidence from related species and early records of *longipalpa* (usually under the name *supellectilium*) indicate clearly that the brown-banded cockroach is native to Africa, whence it spread by association with man. Rehn (1945, 1947, pp. 68-70) has discussed its occurrence in Africa and the history of its growing distribution.

Prior to 1960 there was very little use of the name *longipalpa* in entomological literature, consisting of only about a half-dozen catalogue-style listings. Beginning in 1967, there have been at least 5 widely circulated papers on

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cockroach biology by Dr. Louis M. Roth, including an important review paper (Roth, 1970) in which the name longipalpa is used. Also, usage of longipalpa has begun in Canada, and a very strong precedent for accepting longipalpa has been its use by Princis (1969) in a carefully prepared world catalogue of the cockroach fauna. Usage of the name supellectilium grew rapidly after 1900, as the species became more generally established and came to the attention of entomologists in numerous countries, so that the list of references under that name by Princis (1969) occupies the equivalent of about 4 full pages in the Junk Catalogue format. In spite of this wide contrast in usage, the name longipalpa should now be adopted because of priority and the extent to which longipalpa is already being accepted in substantial literature.

Family and ordinal placement - In the most generally used or "modern" classification, living (not fossil) cockroaches are placed in 5 families, in contrast to the traditional recognition of only one family (Blattidae) or of numerous families, as has been done by several entomologists. Accordingly, Supella now is placed in the family Blattellidae, following the conclusions of McKittrick (1964), which are supported in large part by current fundamental studies such as those of Roth (1970).

Similarly, current usage favors removal of cockroaches from the Orthoptera in a restricted modern sense and placing them as a suborder, the Blattaria, in the order Dictyoptera. The subordinal names Blattaria and Blattariae both were used for suprageneric categories earlier than Blattoidea and several other more recent names. Blattaria was introduced by Burmeister (1829, p. 32) and is preferable to Blattariae, established by Latreille (1810, p. 244), because the ae ending is the standard one for insect families and subfamilies, thus is misleading if used in a subordinal sense. Blattaria is now used in the revised Imms textbook (1960 printing) and many other standard works.

The modern classification of this species, therefore, now stands as follows:

Order: Dictyoptera
Suborder: Blattaria
Family: Blattellidae
Genus: Supella
Species: longipalpa (F.)

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